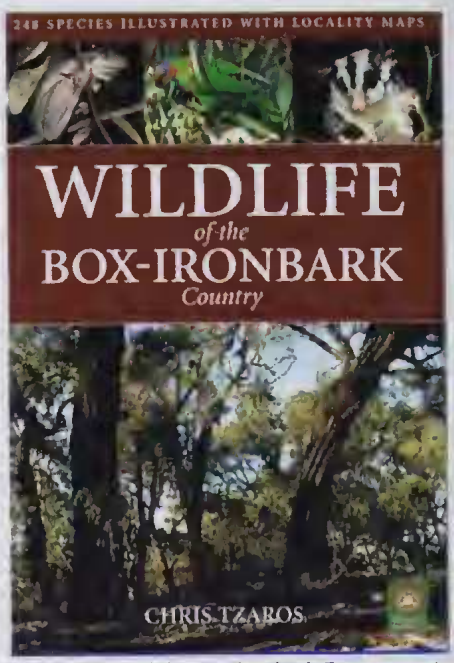
are of nocturnal animals which are particularly difficult to photograph. Some photos are repeated in the book, for example the Crested Shrike-tit (pp 10 and 135) and White-bellied Cuckoo-shrike (pp 54 and 142). Perhaps the space could have been better filled with more views of the different Box-Ironbark habitat types.

The few criticisms I have mentioned are all of a minor nature and do not detract from the book's usefulness. I recommend *Wildlife of the Box-Ironbark Country* to all who have a love of, or an interest in, the Box-Ironbark. Whether you are an experienced Box-Ironbark observer or a new chum to the region, you will learn something from this book. The CD from the back pocket is now in the stacker in my car so I can test myself on bird calls while going about my work, and the book now forms a valued addition to my 'car boot library' for use on future field trips.



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The nature of plants: habitats, challenges and adaptations

by John Dawson and Rob Lucas

Publisher: *CSIRO Publishing, 2005. 314 pages, hardcover, colour photographs; ISBN 0643091610. RRP $64.95*

The first thing that strikes a person regarding this fascinating book is the excellent quality of the colour photographs, depicting such diverse plants, associated animals and habitats as:

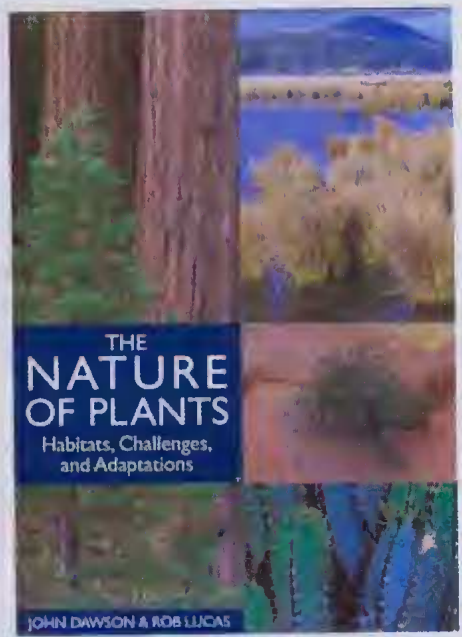
- the tussock grass alpine landscape of Fiordland National Park, New Zealand,
- an outcrop of ultramafic rock with scattered, stunted pines and chaparral shrubs in the Coast Ranges of California,
- a 'giant daisy' on Mount Kilimanjaro, Tanzania,
- a baobab from Madagascar,
- Australian staghorn ferns,
- a grove of *Araucaria columnaris* on New Caledonia,
- a cabbage tree moth camouflaged on a dead leaf of a cabbage
- a puririmoth with a wing span of 15 cm
- the massive fronds of bull kelp, *Durvillea antarctica*
- and much, much more.

The photographs clearly depict and enhance the accompanying text which is

written for those unfamiliar with scientific terms, but scientists also will appreciate the depth and breadth of information offered in *The nature of plants*.

There are nine chapters. Chapter 1, 'The freeloaders - plants using plants', includes an introduction to stem and leaf anatomy and photosynthesis, as well as an account of how many epiphytes there are and the adaptations that allow their survival. This chapter also includes a section on direct parasites, indirect parasites and the effect of parasites on their hosts. The authors describe the intriguing Balanophoraceae for which little is known of the pollination of their flowers. In fact, some species do not require pollination as they can form embryos by a 'type of cloning'! Some mycotrophic parasites feed from their host by an intermediary, a fungus that takes sugars from host tree roots and, in return, supplies water and some mineral nutrients to the tree. The parasite takes some of the sugars and other organic compounds from the fungus and, probably, gives nothing in return.

Chapters 2, 3, 4, 5 and 6 discuss plants from deserts and seasonally arid places, plants in fire prone areas, in regions of toxic soils, of aquatic and marine systems, and of alpine and arctic regions respectively. Plants from regions all around the world are explored. One particularly fascinating story comes from New Caledonia where certain trees, such as *Sebertia acuminata*, can actually store nickel in quantities sufficient to turn the milky latex it exudes when cut a bright blue-green. Another story, not commonly known, is a phenomonon related to survival of some Myrtaceae, where survival is not directly through the lignotubers but via scaly rhizomes arising from them. These rhizomes form an extensive network as much as 20 cm below the ground's surface and can form groves of trees up to 10 m high. Plants spreading by rhizomes are common among herbaceous plants but unusual for tree species. The authors have made a wealth of information available to the populace at large by their simple, clear and concise language and the many examples provided. One cannot convey the diversity of topics encompassed within these chapters. The book is highly recommended and will supply many hours of enjoyable reading. It is not the type of book one would read from cover to cover in a single sitting. The brain would go into overload with the sheer volume of information. It is a book that one would delve into many times in a day, a week, a month. It is a book, however, that one would pick up repeatedly.



The final three chapters deal with 'A love-hate relationship - plants and animals', 'mostly hidden relationships - plants, fungi and bacteria' and 'plant evolution through the ages - an overview'. The authors describe how some ants cut portions of leaves much larger than themselves, carry them to their nest and use them to make fungus gardens and then feed on the fungal growths. Another story relates to pollination of the fig which forms a specialized structure, the syconium, which is lined with flowers on the inside. The syconium has a small opening to the outside which is partly blocked by small scales. Usually there is an exclusive relationship with the fig and its pollinator, mostly a type of wasp that lays its eggs in the syconium. The male wasps hatch before the females, bore into flowers occupied by females, fertilise them and die. The female wasps hatch when the male flowers release pollen, thus as the female emerges from the syconium, it collects

pollen over itself. If the female wasp then enters a female syconium to lay its eggs in the neuter flowers, it pollinates the female flowers in the process. Some of the hidden relationships include those of the nitrogen fixing bacteria and the mycorrhizae. The final chapter dealing with plant evolution is a romp through geologic time and presents an excellent overview.

The book provides hours and hours of entertainment and is highly recommended. It is ideal for those with little or no background in plant biology and would provide a wonderful and instructive resource for teachers and their students. It is also ideal for the armchair traveller, but beware, the armchair may be traded in for a ticket to any one of the fantastic places illustrated. Bye now, I'm off to see how anything can grow at Coyote Buttes near the Arizona-Utah border.

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Forgotten Flora Resource Kit

by J Milne, T Lebel, A Veenstra-Quah and G Shadforth

Publisher: *Royal Botanic Gardens Melbourne, Australia, 2004. 3 CD-R and 10 posters, ISBN 0975136232. RRP $154.00*

Forgotten Flora is aptly named. Indeed, bryophytes, fungi and lichens (fungi with one or two algal symbionts) have been overlooked by scientists and the public alike, yet they are vital to the ecology and health of all terrestrial habitats and most aquatic habitats. The resource kit consists of three CDs and ten posters. It is aimed primarily at teachers and is presented at a level such that those untrained in plant biology or mycology can understand and successfully use the information presented. The authors aimed to promote increased awareness of the Forgotten Flora, educate people about their importance to the environment, and show their beauty. They have done this admirably, and producing the kit for teachers of older primary and secondary school children ensures a future generation with a better understanding and appreciation of these small but exceedingly important organisms.

The CDs are presented much like a text book but are partially interactive. Hopefully, the next edition will be fully interactive. Each CD includes a brief introduction to the groups of organisms comprising the forgotten flora, and explains the existence of the other two CDs and the ten posters. The 'Educators Note' explains how the information in the kit can be incorporated into the Key Learning Areas of the Curriculum and Standards Framework for Biological Science. Following the general introduction, which is specific to the group of organisms pertinent to the CD in question, there are five sections which provide detail on the relevant group of organisms, their interactions, how to study them, a list of activities and associated worksheets and a bibliography and glossary. These are accompanied by superb photographs and drawings. The activities, which would be of great benefit to teachers, include making spore prints of fungi, using fungi to make ink, looking at what lives in the fruiting structures of fungi, graveyard lichens, finding out whether lichens are 'fussy', using lichens as bioindicators of pollution, finding out